

# **Final Report**

## ***Missouri Department of Agriculture***

### **Evaluation of training methodologies directed at food animal producers.**

Our focus on producer education, for the past year, has used three different media, trade shows and fairs, small group meetings and information centers. All three systems have their faults and benefits, which will be reviewed in this document. While communicating with food animal producers, some overall concerns have been expressed.

First, food safety and quality cannot be separated when talking to producers. Quality assurance practices improve food safety by improving the overall health of food animals, therefore reducing the chances of antibiotic residues. Good management practices, through quality assurance issues, will help improve culling practices, which can potentially reduce pathogen levels in food animal products.

Second, food animal producers have an interest in obtaining information to improve the profitability of their product. This statement is deceptive. In general, producers of pork and poultry know, by accounting, if their enterprises are profitable. Pork and poultry producers have more capital intensive operations and are forced to account for all investments that improve product quality and efficiency. Beef and dairy producers have a tendency to treat the meat production portion of their business as supplemental income. Many beef producers use their beef enterprise as a supplemental income to a job in town or some other agriculture enterprise. Dairy producers use their cull cow and calf sales as supplemental income to milk production. Therefore, in many situations, dairy and beef producers have little or no accurate information to measure enterprise profitability. With no defined measure of profitability on food animal sales, beef and dairy producers are hesitant to spend money to improve quality or safety. All quality assurance issues must be enforced by repeatable economic success to insure widespread acceptance by producers.

The issue of cost, and the lack of information on returns, leaves food animal producers reluctant to accept quality and good management practices. Economics is a priority when designing a value-added quality assurance program. When a consumer makes a buying decision between two items of differing price, the higher priced item has to have an equally higher benefit. The same situation holds true with food animal producers considering participation in quality assurance programs. All quality assurance programs will cost money for participation. The food animal producer wants to know that a greater benefit or value will result from the cost of program participation.

Third, food animal producers are consumers. Food animal producers are very interested in quality and safety issues when these issues affect them directly. Producers, addressed as consumers, gain sudden interest in safety and quality when posed the question, "Would you eat that yourself?" Feeder cattle producers, especially in Missouri where most calves are exported for finishing, do not consider themselves food animal producers. When addressed as consumers, feeder calf producers start putting together the obvious: they are in the food animal production

cycle and must consider safety and quality.

Finally, information distribution and consistency are a major concern. When considering the sources providing information to food animal producers, the message can understandably become distorted. For example, in Missouri we have three different factions of outreach and extension, a college of veterinary medicine, commodity organizations, feed companies and their distributors, pharmaceutical companies, livestock markets and practicing veterinarians. These players are promoting four major cattle health or quality assurance programs, with talk of more developing in the near future. When faced with the decision of whether to implement a program or do nothing, several producers opt to do nothing to avoid confusion. The Division of Animal health naturally supports any program that promotes quality improvement in Missouri food animals. In an attempt to minimize confusion, the Division of Animal Health encourages the different programs to work together when possible. At the same time, the division attempts to keep parties providing information on quality assurance programs well informed on the issues and requirements for each program. Some of the factors the division has recognized as important to quality assurance success are:

- 1) Quality nutrition to increase immune response and add saleable weight to feeder cattle.
- 2) Quality assurance education to help producers understand why and how to improve product quality.
- 3) A sound animal health program that includes deworming and increases saleable weight on feeder cattle.
- 4) Quality genetics with information feedback and continuous improvement.
- 5) Marketing programs that contact buyers that understand the value of program livestock.

At this time, Missouri has only one value-added program that comes close to addressing all of these factors. However, the other programs should not be faulted if nutrition, genetics or markets are not addressed. For example, if a producer chooses to participate in an animal health program from a pharmaceutical supplier, he needs to seek nutritional, marketing, quality assurance education and genetic feedback from other sources. When all five quality improvement factors are employed, livestock producers quickly build a positive reputation for their livestock and add value to their food product.

## **Evaluation of methodologies**

**Small Group Meetings:** Over the past two years, the division has attempted to facilitate food animal producer education through small group meetings. In this report, consider a small group meeting to be made up of 20 or fewer individuals involved in food animal production. Primary organizers of small group meetings are considered to be veterinarians, livestock markets, vocational agriculture teachers, commodity organizations and extension livestock specialists. Interest and acceptance has been varied within the organizer group. When considering small group meetings as an information distribution vehicle, several factors are involved in the success or failure of the system. Factors that need to be measured or evaluated are personnel, audience, travel cost, and acceptance and retention of the message by audiences. When evaluating the small group mode of information presentation, primary cost cannot initially outweigh the potential for

better retention of the message.

The first factor that needs to be evaluated is the personnel that act as presenters at small group meetings. Presenters must be knowledgeable about quality and safety issues and the programs that improve these issues. Presenters must be consistent in their presentations, enthusiasm and responses to producer questions. Presenters must be able to speak to the audience's needs. If your audience is all veterinarians, speak to their level of understanding, likewise, producer audiences understand different terminology. Visual aids are important to information understanding, so it is wise to use either 35mm slides, overhead transparencies or power point presentations. Information to take home, such as handouts or brochures, aid information retention and serve as reference points when making decisions on program participation. Preferably, the organization making small group presentations has people close to the program area. Our division has made an effort to train and include our field staff in the small group education process. By including well-trained field staff, travel expenses are reduced. Our division is fortunate to include knowledgeable field staff. All organizations do not have this luxury. Finally, presenters must address their audience as customers. Speakers should present the benefits of participating in quality assurance programs. The presenter should sell the producer the benefits, monetary or social, from quality assurance compliance.

Audience acceptance of quality improvement and food safety messages are received better by younger producers, less than 50 years of age. Organizers and the type of meeting tend to attract different age audiences. The preferred, younger audience is always hard to schedule correctly. The young audience has constant conflicts with the rest of their family schedule. The following are general observations about which organizers, and functions attract audiences.

Overall, the organizers that draw the best quality crowds are vocational agriculture instructors that have a young farmer organization. Vocational agriculture instructors are constantly seeking programs for their young farmer groups, and should be commended for attempting to offer ongoing agriculture education in their communities. Young farmer meetings are ideal situations to present information on quality assurance. The audience is receptive and broadens the educational process by asking questions. The drawback: crowd size can vary from two to twenty. Although our division has never asked for a guaranteed number of people, and likely will not, the cost effectiveness of this type of meeting may be prohibitive to some organizations.

Livestock markets are becoming interested in value-added livestock. Markets are excellent organizers and do a great job drawing a crowd. The audience at livestock market meetings will vary, but have a tendency to be somewhat older and less receptive to the quality assurance message. Market owners feel compelled to provide a meal to draw a crowd. Encourage markets to save their money and spend it on something else. Initially, a free meal seems like the best way to draw a crowd, but the crowd has turned out for the meal and not the message. Audience quality will increase if the presentation is the focus of the meeting, not the meal.

Commodity organizations are good venues for small group education. Commodity organizations consist of local groups of beef or pork producers. Most of these groups hold monthly or quarterly meetings, usually centered around a meal. Most of the commodity organizations have small treasuries and seek speakers that will pay for a meal. Since our division

has no intentions of buying dinner to provide education, we have had limited success with commodity organizations. Audiences at commodity meetings tend to be neutral to the quality assurance message, with younger participants being very interested and older participants enjoying the social atmosphere.

Our division has had very little success encouraging veterinarians to sponsor small group meetings. Veterinarians should be extremely interested in quality assurance and food safety, because the issue adds value to their business. The meetings that veterinarians sponsor are excellent, the audience is receptive, but the opportunities are few and far between. Veterinarians should be asked to sponsor meetings and be reminded of the potential to add value to their business. Meetings organized by veterinarians are areas where our division will expand.

Overall, the preferred type of audience is one that attends a meeting to listen and participate. Younger audiences are more receptive. Preferred organizers are veterinarians, vocational agriculture instructors, livestock markets and to some extent commodity organizations.

Travel cost for small group meetings can be excessive. In the case of the Division of Animal Health, we have field staff that are quite capable presenters. Field staff can minimize travel expenses greatly. The cost involved in our typical small group meeting are mileage, lodging, meals and wages. The average cost of a small group meeting presented by field staff involves only mileage, one meal and wages. Field staff will average 90 miles per round trip at 29.5 cents per mile cost for total mileage expenses of \$26.55. Meal allowance will be \$9. Wages will average \$86.50. Using field staff as presenters eliminates lodging expenses. Therefore, a small group meeting presented by division field staff costs the division \$122.05. An average meeting attendance of 20 producers will result in a cost per producer contacted of \$6.10.

If central office personnel act as presenters, the cost per person reached increases dramatically. The average mileage increases to 250 miles per round trip, at 29.5 cents per mile for a total mileage expense of \$73.75. Meal allowance will be \$13. Lodging will become a factor at \$55. Wages will average \$81. A small group meeting presented by central office staff will cost the division \$222.75. With the same average attendance of 20 producers, cost per producer contacted rises to \$11.14. Consistent, quality speakers, located in the area where a small group meeting is held are much more cost-effective than central office staff presentations. Consistency of presentation is important, creating a need for continual update and correlation.

Finally, audience acceptance and retention should be considered. Measurement of acceptance and retention is next to impossible on any type of statistical basis. People do not like to complete surveys, either on location or by mail. Audience acceptance needs to be estimated by the presenter. Comments and questions during and after the meeting are a good indicator of positive acceptance of the quality and safety concept. Usually, no questions indicate lack of interest. Retention of the message by audiences can be partially measured by the numbers of participants in quality assurance programs. To aid retention physically hand out brochures and other information so that each audience member has the material in their hand when the meeting is completed. Distributing material during the meeting also increases the opportunity for questions. Leaving stacks of material at the door for pickup on departure only adds to the amount of material the presenter has to take home. A short presentation, 30 minutes or less, with 15 minutes of questions and answers, aids in audience acceptance.

In summary, small group meetings organized by veterinarians, vocational agriculture

instructors or livestock markets, with no meal, attract an audience that will likely listen, learn and implement some quality assurance practices. Consistently using trained staff that, as much as possible, are local is the most cost effective for the organization. Small group meetings provide the most reinforcement of the quality and safety message, and should be a part of any effort to educate producers, but cost must be held in line.

**Trade Shows and Fairs:** Trade shows and fairs can be good tools to reach large numbers of producers, but can be very expensive if the primary customer group is in low attendance. Caution is the rule when planning to attend trade shows. A poor show can be very expensive, and a huge waste of personnel. Shows with good producer attendance can be cheap customer contact tools.

Deciding which shows to attend are difficult. A simple decision rule is to listen to the observations both of experienced staff and experienced peers. Before paying to participate in a trade show or fair, attend, make observations of the crowd and ask questions of exhibitors. Find out what a booth space costs, along with incidentals, and confirm if the booth needs to be manned at all times. Generally, we find that industry trade shows have excellent attendance by livestock producers that are interested in obtaining information. Fairs on the other hand are poorly attended by information-seeking producers, but if the end consumer is the focus, fairs are excellent information distribution tools. In the case of the Division of Animal Health, some trade shows are attended to provide a political presence. In these situations, we try to minimize cost such as wages, lodging and travel. Typically, all trade shows provide some exposure, but not all are cost effective.

A good trade show requires a lot of hard work. Your organization should invest in a nice looking booth that is easy to transport and set up. Booth equipment must be versatile so it can be used cooperatively with other organizations. Pictures and text for the booth should be indicative of the message, and attractive to the audience. Put the literature for distribution at easy access for your audience, preferably using plastic brochure boxes to keep your area neat. The main problem at a trade show is to get people to stop at your booth. Customer draw leads to the success or failure of the project. To draw people to your booth, invest in promotional materials such as refrigerator magnets, note pads or ink pens. Other crowd stoppers are door prize registrations and continuous videos about your business. By all means, count the people that stop at your booth. A rule that we follow is to count individuals who stop and read signs on the booth, pick up brochures, or ask questions. Generally, don't count people who only pick up free items or sign up for door prizes.

To have a successful trade show, people must stop. For all the note pads, ink pens and candy bowls provided, producers are wary about stopping if no personal interest is shown. Personnel that simply sit at a booth, and do not take the initiative to address producers as they pass, will be very disappointed in the success of a trade show. Ask people to stop by offering a free item. Most will take the item, and one out of five will stop and ask questions or pick up material. Personnel manning a booth must be able to answer a wide array of questions. Staff should also have access to a listing of names and phone numbers that customers can refer to for additional information. The number of individuals needed to properly staff a booth depends on customer volume. Excessive wages will adversely affect the cost of show participation, but an understaffed booth does not adequately service your customer needs.

Cost of producer exposure is a main decision factor when considering trade show participation. To correctly measure trade show cost, there must be a system to count inquiries. To measure cost effectiveness of a particular trade show or fair, account for the following expenses: lodging, travel, meals and wages. Personnel expenses will account for two-thirds to three-fourths of trade show expenses. Try to staff booths with the most qualified individuals, who create the least expense. Material expense will involve promotional materials and brochures. We try to provide attractive promotional materials that are practical and inexpensive. Door prizes should only be used at your most cost-effective shows. Booth space seems to be expensive at first glance, \$300 to \$500 per show, but is actually a very minor expense.

A good example of a very effective trade show is the Farm Fest in Springfield, Missouri. Our personnel expenses were \$1,707. Material was \$396 and booth space cost \$410. We had meaningful contact with 570 producers, which resulted in a cost per person of \$4.41. This trade show is very effective, and we will continue to attend. Another example is a commodity group convention and trade show. Our personnel expenses were \$1,134, materials estimated at \$50 and booth space cost \$425. We had 90 meaningful contacts over the two-day period and cut expenses to a minimum, with a resulting cost per person of \$17.88. Needless to say, under normal conditions we would choose not to attend in the future, but because of constituent relations we will continue for the near future.

Trade shows are good primary producer contact tools, if costs are not excessive. Booths must be manned with knowledgeable, outgoing staff, who will ask producers to stop and seek information. Materials should be readily available, especially if staff is not available at all times to man the booth. Promotional items to draw attention to the booth are preferred, but keep the purchase cost within reason. Personnel management is important. Personnel costs account for more than two-thirds of trade show expenses. With proper cost management and good personnel, a trade show can be a very effective first contact tool.

**Information Centers:** A median that our division has developed over the past year is the location of information centers (brochure racks) in livestock markets and veterinary clinics. The acceptance by veterinarians has been tremendous and livestock markets are very willing to devote wall space to quality assurance information distribution. Information centers have developed into our primary emphasis on initial contact with livestock producers interested in quality assurance and food safety information.

Veterinary clinics and livestock markets were chosen as sites for information centers because they have consistent contact with food animal producers, good volume of producer exposure, and our division has consistent contact with both types of sites. Other options can be extension offices and feed distributors. Veterinary clinics have been excellent locations. Veterinary clinics have staff that will distribute information and answer some questions. Clinics with information centers will tend to contact our staff for speakers at small group meetings and additional information on questions not answered in the brochures. Livestock markets provide excellent volume exposure to information centers. One of the side benefits of information center location in livestock markets is the increase in interest by market owners in quality assurance programs and proper animal handling. We feel that these are the best sites for our organization, but other location types might be better suited for different organizations.

We asked that each of our eight district veterinarians provide a list of veterinary clinics and livestock markets to establish our initial information centers. This listing yielded 70 locations, of which we have presently installed 57. Our initial distribution of centers was heavily skewed toward markets. Presently market installations have covered most of the licensed markets in Missouri. We have installed information centers in approximately 20 veterinary clinics and feel most of our growth in numbers of centers to be in veterinary clinics. Division staff is responsible for restocking information centers, and we are presently working to establish a schedule for checking sites. Information centers need to be as user friendly as possible, which means having the correct information available. One of the reasons for acceptance has been the fact that division staff installs and maintains information centers, placing no burden on location staff for maintenance.

Materials included in a normal information center provide a great deal of information for food animal producers about quality assurance programs, food safety concerns of consumers, beef quality audit information, livestock handling and programs that add value to livestock production.

Division staff has produced a brochure titled "Beef Quality Improvement Practices," which highlights beef quality audit information and management tools to correct the faults identified in the audit. Our staff has produced a brochure informing the food animal producer about consumer concerns with food safety and management practices that will help ease consumer concerns. This brochure is titled "Food Safety for the Livestock Producer." Division staff has provided expertise in rewriting the Missouri Veterinary Medical Association brochure, which outlines their quality assurance program. Staff has also assisted in the writing of a new MVMA publication outlining the stocker cattle quality assurance program. Presently, division staff is writing a brochure in cooperation with the Kansas City Food and Drug Administration that will outline producer responsibilities for preventing the introduction of Bovine Spongiform Encephalopathy into the United States. Included in information centers is information on a joint venture of the department and the University of Missouri that provides a value-added tool for genetic improvement in the beef herd, "Show Me Select Heifer Program." Our information centers provide Livestock Conservation Institute publications on proper livestock handling and handling non-ambulatory animals. We are presently working with LCI to provide their publication "Food Safety Digest." Members of the division staff print a quarterly newsletter that we include in the information centers. Also included in the information center are brochures on livestock branding, disposing of dead animals, and information about voluntary disease reduction programs focusing on Bovine Leukosis Virus and Paratuberculosis. When installing information centers, input is sought from location ownership on what information is most applicable to their customers. If a particular quality assurance program is supported by the business, we also provide space for appropriate material.

Cost of maintaining information centers is minimal. Initial installation costs are nominal considering the longevity of the centers. The basic composition of each unit contains a color Missouri Department of Agriculture logo, a Division of Animal Health name plate with a primary phone number, the brochure rack itself, which is made up of interlocking, interchangeable plastic boxes of various sizes and the informational material. The typical information center is made up of two magazine-sized boxes and eight trifold brochure boxes. The cost of the brochure rack itself is \$18, the department logo is \$8 and the name plate is \$10. The average first stocking of materials

is \$46. The first dispersal of material through an information center, considering an average producer picks up two brochures and the entire equipment cost is depreciated, is 40 cents per producer reached. Information centers are, therefore, an extremely cost-effective initial contact media. Because our field staff stop at all locations during normal activities, the cost of maintenance, other than replacement material, is negligible.

The information center media is an excellent initial way to contact food animal producers. Centers are inexpensive to establish, and maintain, and are very accessible. The management at information center locations readily accepts the materials due to low impact and the importance of the message. The main drawback that we have encountered is who should be responsible for maintaining the centers. In similar situations, maintenance responsibility is left to the location staff. Resulting maintenance is poor or none. We have asked division staff to maintain our information centers during their normal duties. This both keeps the centers well maintained, and improves already good working relationships with location management. An important factor needs to be kept in mind. Information centers, as well as trade shows, are initial contact tools. Both contact tools require personal reinforcement of the message. An opportunity to ask questions, and have them answered, is important to the success of quality and safety improvement. Inquiries can be addressed by small group meetings, veterinarians, agriculture instructors or extension staff. Producers will most likely accept programs that can be tied to a person or organization, not a piece of paper.

**Conclusions:** The primary tools used for producer education are small group meetings, trade shows and information centers. Information centers are the best source of initial producer contact for quality and safety issues. Trade shows are intermediate tools for producer contact providing materials as well as the opportunity for personal contact. Small group meetings are the best source for message retention and reinforcement.

The most effective small group meetings are organized by veterinarians, vocational agriculture instructors and livestock markets. Preferably meetings will draw a larger portion of young progressive producers. If field staff is available and qualified, they can provide a reduction in cost. Presenters should be well informed and enthusiastic, willing to provide the economic benefits of quality assurance programs. In the future, our staff needs to continue to work to encourage small group meetings, especially with veterinarians as the organizers. To accomplish this goal, veterinarians will need to be encouraged to sell the economic benefits of program participation to their clients.

Trade shows can reach a large number of producers. Trade show booths must be manned by very outgoing staff, willing to make the initial contact with producers. The booth at a trade show needs to provide an attractive display of pictures and brochures, as well as free items to draw customers. Staff manning a booth must count participants to measure the effectiveness of trade show participation. Fairs do not draw the producer audience needed to offset the cost of a booth. Trade show participation is very expensive; therefore constant measurement of cost versus effectiveness must be maintained.

Information centers are our most effective initial contact tools. Both from a cost as well as volume standpoint. Veterinary clinics and livestock markets are the most effective sites for information centers. Centers are stocked with a variety of materials and rotated occasionally. In



the future, other types of sites will be studied to determine if information centers will be effective.

Emphasis should be maintained on a few key issues when providing producer information on quality issues. Food safety and quality assurance should be discussed together as one affects the other. Producers must be shown the economic as well as social benefits of participating in a quality assurance program or employing best management practices to increase food safety. With interest in quality and safety increasing as an educational and sales topic, the message delivered to producers must be consistent. Producers must be educated on all of the supporting factors that influence increased product worth, animal health, nutrition, genetics and marketing. Employing these factors will result in increased producer acceptance and implementation of quality assurance and good management practices that lead to a safer product with added value.

**Final Report**

*from*

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